

In the Claims:

1 1. (Twice amended) An electronic switching apparatus for flexibly
2 interconnecting a plurality of signal endpoints, the apparatus comprising:
3 a first circuit for receiving at least one input signal from at least one
4 input endpoint, the first circuit having at least one pair of left and right barrel
5 shift registers coupled to at least one of the at least one input endpoint for
6 receiving the at least one input signal, shifting and rotating the at least one
7 input signal, and transmitting at least one output signal; and
8 a second circuit coupled to outputs from the first circuit for sending at
9 least one received signal to at least one output endpoint.

1 7. (Twice amended) A method for electronic signal coupling, the method
2 comprising the steps of:
3 receiving a first set of digital signals, the received first set of digital
4 signals being provided to at least one pair of left and right barrel shift registers;
5 shifting and rotating the first set of digital signals; and
6 transmitting a second set of digital signals, the transmitted second set of
7 digital signals being provided from a plurality of multiplexers, the plurality of
8 multiplexers being selectably coupled to the barrel shift registers such that at
9 least one signal selected in the first set of digital signals is selectably coupled
10 for transmission in the second set of digital signals.

1 14. (Once amended) A system for electronic signal coupling comprising:
2 means for receiving a first set of digital signals, the received first set of
3 digital signals being provided to at least one pair of left and right barrel shift
4 registers;
5 means for shifting and rotating the first set of digital signals; and
6 means for transmitting a second set of digital signals, the transmitted
7 second set of digital signals being provided from a plurality of multiplexers, the
8 plurality of multiplexers being selectably coupled to the barrel shift registers
9 such that at least one signal selected in the first set of digital signals is
10 selectably coupled for transmission in the second set of digital signals.